

### ABSTRACT

A system, method, and computer program product for allocating resources to a communication channel between a transmitter and a receiver are disclosed. The receiver implements a procedure that instructs the transmitter to utilize the maximum available bandwidth, consistent with maintaining satisfactory communication channel performance. When the performance of the communication channel degrades, the receiver measures the strength of a communication signal received from the transmitter. If the communication signal strength satisfies a threshold, then the bandwidth dedicated to the communication channel may be decreased, and at least one of the number of bits per symbol and coding rate may be increased. By contrast, if the communication signal strength fails to satisfy a threshold, then the transmitter may increase the transmission power and/or reduce the user rate of the communication link.